

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

1-14. Canceled

15. (Currently Amended) A The registration method as claimed in claim 13 for providing voice communications between a wireless communication device and an end terminal in a packet data network, comprising:

performing a location update of the wireless communication device;
authenticating the identity of the wireless communication device;
performing a ciphering procedure for the wireless communication device;
notifying a Voice-over-Internet-Protocol Mobile Switching Center ("VMSC") of the registration of the wireless communication device, the VMSC communicating with the wireless communication device through a circuit-switched network and communicating with the end terminal through a packet-switched network;

activating a communication between the VMSC and the packet data network;
performing a registration of the wireless communication device to the packet data network; and

notifying the wireless communication device of the completion of location update,
wherein an activation of the communication between the VMSC and the packet data network comprises:

initiating a new Packet Data Protocol ("PDP") context by the VMSC;
establishing a record for the wireless communication device by a Gateway
General Packet Radio Service ("GPRS") GPRS Support Node ("GGSN"), the
GGSN communicating with the packet data network through a gatekeeper ("GK")
and with the VMSC through a supporting Serving GPRS Support Node
("SGSN"); and
enabling an Internet-Protocol communication between the GK and the VMSC.

16. (Currently Amended) A The registration method as claimed in claim 13 for providing voice communications between a wireless communication device and an end terminal in a packet data network, comprising:

performing a location update of the wireless communication device;
authenticating the identity of the wireless communication device;
performing a ciphering procedure for the wireless communication device;
notifying a Voice-over-Internet-Protocol Mobile Switching Center ("VMSC") of the registration of the wireless communication device, the VMSC communicating with the wireless communication device through a circuit-switched network and communicating with the end terminal through a packet-switched network;

activating a communication between the VMSC and the packet data network;
performing a registration of the wireless communication device to the packet data network; and

notifying the wireless communication device of the completion of location update,
wherein the registration of the wireless communication device to the packet data network comprises:

initiating the registration and notifying a gatekeeper ("GK") of the packet data network, by the VMSC, with an alias address and a transport address;
creating a record by the GK for the mobile phone containing corresponding information of a mobile phone number to an IP address;
notifying the VMSC of the completion of the registration by the GK; and
establishing Mobility Management and a Packet Data Protocol context by the VMSC and storing the context in a mobile phone record of the VMSC.

17. (Currently Amended) The registration method as claimed in claim [[13]] 15, wherein the wireless communication device is a mobile phone and the end terminal is a H.323 terminal.

18. (Original) A registration method for providing Voice-over-Internet-Protocol service between a H.323 terminal in a packet data network and a mobile phone in a network implementing General Packet Radio Service ("GPRS"), comprising:

performing a location update of the mobile phone;
authenticating the identity of the mobile phone;
performing a ciphering procedure for the mobile phone;
notifying a Voice-over-Internet-Protocol Mobile Switching Center ("VMSC") of the registration of the mobile phone, the VMSC communicating with the mobile phone through a circuit-switched network and with the H.323 terminal through a packet-switched network;
activating a communication between the VMSC and the packet data network, an activation of the communication comprising:
 initiating a new Packet Data Protocol ("PDP") context by the VMSC;
 establishing a record for the mobile phone by a Gateway GPRS Support Node ("GGSN"), the GGSN communicating with the packet data network through a gatekeeper ("GK") and with the VMSC through a supporting Serving GPRS Support Node ("SGSN"); and
 enabling an Internet-Protocol ("IP") communication between the GK and the VMSC;
performing a registration of the mobile phone to the packet data network, comprising:
 initiating the registration by the VMSC and notifying a gatekeeper ("GK") of the packet data network with an alias address and a transport address by the VMSC;
 creating a record by the GK for the mobile phone containing
 corresponding information of a mobile phone number to an IP address;
 notifying the VMSC of the completion of the registration by the GK;
 and
 establishing Mobility Management and a PDP context by the VMSC
 and storing the context in a mobile phone record of the VMSC; and
notifying the mobile phone of the completion of location update.

19. Canceled

20. (Currently Amended) The call-making method as claimed in claim [[19]] 21, wherein a network communicating between the packet data network and the wireless communication device implements General Packet Radio Service.

21. (Currently Amended) A The call-making method as claimed in claim 19 for a wireless communication device to activate voice communications with an end terminal in a packet data network, comprising:

performing channel assignment, authentication, and ciphering setup procedures for the wireless communication device;

performing a call setup procedure for the wireless communication device;

establishing a voice communication channel between a Voice-over-Internet Protocol Mobile Switching Center ("VMSC") and the packet data network, the VMSC communicating with the wireless communication device through a circuit-switched network and with the end terminal through a packet-switched network;

alerting the end terminal and the wireless communication device;

connecting the end terminal and the wireless communication device through the VMSC;

and

performing a Packet Data Protocol ("PDP") context activation procedure to create a voice PDP context,

wherein the step of establishing the voice communication channel between the VMSC and the packet data network comprises:

providing the Internet-Protocol address of the end terminal to the VMSC by a gatekeeper ("GK") of the packet data network;

communicating with the end terminal by the VMSC to exchange setup and call-proceeding signals between the VMSC and the end terminal; and

transmitting Registration, Admission and Status ("RAS") Admission Request ("ARQ") signals to the GK and requesting communications by the end terminal.

22. (Currently Amended) The call-making method as claimed in claim [[19]] 21, wherein the wireless communication device is a mobile phone and the end terminal is a H.323 terminal.

23. (Original) A call-making method for a mobile phone in a network implementing General Packet Radio Service to activate Voice-over-Internet-Protocol communications with a H.323 terminal in a packet data network, comprising:

- performing channel assignment, authentication, and ciphering setup procedures for the mobile phone;

- performing a call setup procedure for the mobile phone;

- establishing a voice communication channel between a Voice-over-Internet-Protocol Mobile Switching Center ("VMSC") and the packet data network, comprising:

- providing the Internet-Protocol address of the H.323 terminal to the VMSC by a gatekeeper of the packet data network;

- communicating with the H.323 terminal by the VMSC to exchange setup and call-proceeding signals between the VMSC and the H.323 terminal; and

- transmitting Registration, Admission and Status Admission Request signals to the gatekeeper and requesting communications by the end terminal, wherein the VMSC communicates with the mobile phone through a circuit-switched network and with the H.323 terminal through a packet-switched network;

- alerting the H.323 terminal and the mobile phone;

- connecting the H.323 terminal and the mobile phone through the VMSC; and

- performing a Packet Data Protocol ("PDP") context activation procedure to create a voice PDP context.

24-28. Canceled

29. (Currently Amended) The call-receiving method as claimed in claim ~~[[28]]~~ 30, wherein a network communicating between the packet data network and the wireless communication device implements General Packet Radio Service.

30. (Currently Amended) A The call-receiving method as claimed in claim 28 allowing a wireless communication device to receive voice communications initiated by an end terminal in a packet data network, comprising:

establishing a voice communication channel between a Voice-over-Internet-Protocol Mobile Switching Center ("VMSC") and the end terminal, the VMSC communicating with the wireless communication device through a circuit-switched network and with the end terminal through a packet-switched network;

paging the wireless communication device;

performing channel assignment, authentication, and ciphering setup procedures for the wireless communication device upon receiving a response from the wireless communication device;

performing a call setup procedure for the wireless communication device;

alerting the wireless communication device and alerting the end terminal;

connecting the end terminal and the wireless communication device through the VMSC;

performing a Packet Data Protocol ("PDP") context activation procedure to create a voice PDP context; and

activating voice communications for the wireless communication device by the VMSC,

wherein establishing the voice communication channel comprises:

performing Registration, Admission and Status ("RAS"), Admission Request ("ARQ") and setup procedures, wherein the end terminal transmits a RAS admission request signal to a gatekeeper of the packet data network, which contains the identity of the wireless communication device, and the gatekeeper responds to the end terminal with a RAS admission confirmation signal;

sending a setup signal to the VMSC by the end terminal;

responding to the end terminal with a call proceeding signal by the VMSC;

and

exchanging RAS admission request and admission confirmation signals between the VMSC and the gatekeeper.

31. (Currently Amended) The call-receiving method as claimed in claim ~~[[28]]~~ 30, wherein the wireless communication device is a mobile phone and the end terminal is a H.323 terminal.

32. (Original) A call-receiving method allowing a mobile phone in a network implementing General Packet Radio Service to receive voice communications initiated by a H.323 terminal in a packet data network, comprising:

establishing a voice communication channel between a Voice-over-Internet-Protocol Mobile Switching Center ("VMSC") and the H.323 terminal, the VMSC communicating with the mobile phone through a circuit-switched network and with the H.323 terminal through a packet-switched network, the step of establishing a voice communication channel comprising:

performing Registration, Admission and Status ("RAS") admission request and setup procedures, wherein the H.323 terminal transmits a RAS admission request signal to a gatekeeper ("GK") of the packet data network, which contains the identity of the mobile phone, and the GK responds to the H.323 terminal with a RAS admission confirmation signal; sending a setup signal to the VMSC by the H.323 terminal; responding to the H.323 terminal with a call proceeding signal by the by the VMSC; and exchanging RAS admission request and admission confirmation signals between the VMSC and the GK;

paging the mobile phone;
performing channel assignment, authentication, and ciphering setup procedures for the mobile phone upon receiving a response from the mobile phone;
performing a call setup procedure for the mobile phone;
alerting the mobile phone and alerting the H.323 terminal;
connecting the H.323 terminal and the mobile phone through the VMSC; and activating voice communications for the mobile phone by the VMSC.